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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,615	07/01/2003	Hiroyasu Inoue	890050.434	3987

500 7590 07/01/2005

SEED INTELLECTUAL PROPERTY LAW GROUP PLLC
701 FIFTH AVE
SUITE 6300
SEATTLE, WA 98104-7092

EXAMINER

CHEN, TIANJIE

ART UNIT PAPER NUMBER

2652

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/612,615	Applicant(s) INOUE ET AL.	
	Examiner Tianjie Chen	Art Unit 2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2005/12/5/14/2005 02/18/2004 11 08</u> | 6) <input type="checkbox"/> Other: ____ |

Non-Final Rejection

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 3, 5, 7, 9, and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 3 recites "the element contained in the first recording film as a primary component and the element contained in the second recording film as a primary component are mixed when the first recording film and the second recording film is irradiated with a laser beam, thereby forming a record mark." However, in Applicant's embodiment, first and second recording layers are separated by layers 22, 21, 12, and 34. It is not disclosed how to mix the materials in two recording layers.

Claims 5, 7, 9, and 11 are rejected for their dependence from claim 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto et al (US 6,636,477) in view of Aratani et al (US 6,788,635).

Claim 1, Miyamoto et al shows an optical recording medium in Fig. 1 including a substrate 1 (or 1'), a light transmission layer 1' (or 1) and a plurality of recording layers 3 and 3' between the substrate and the light transmission layer and capable of recording data in the plurality of recording layers and reproducing data recorded in the plurality of recording layers by projecting a laser beam via the light transmission layer onto the plurality of recording layers, at least one recording layer other than a farthest recording layer from the light transmission layer including a reflective film 5' (Column 17, lines 23-40) containing Ag as a primary component and additive is added; but fails to show C is used as an additive for Ag.

Aratani et al shows an optical recording medium, wherein C is used as an additive in Ag (Column 10, lines 18-28).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to use C as an additive. The rationale is as follows: Miyamoto teaches that C is used as an additive for Al and an additive is also for Ag, but does not mention the additives. Aratani shows that C can be used as an additive for both Ag

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and Al. One of ordinary skill in the art would have been motivated to include C as an additive for Ag.

Claim 2, Miyamoto et al further shows that each of the plurality of recording layers contains a phase change material (Column 13, line 27).

Claim 3, an optical recording medium in accordance with Claim 1, wherein each of the plurality of recording layers includes a first recording film of GeAg containing one kind of element selected from the group consisting of Si, Ge, Sn, Mg, C, Al, Zn, In, Cu and Bi as a primary component and a second recording film of AgTe disposed in the vicinity of the first recording film and containing one kind of element from the group consisting of Cu, Al, Zn, Si and Ag and different from the element contained in the first recording film as a primary component.

Claims 4 and 5, Aratani et al teaches the reflective film included in the at least one recording layer contains 0.5 atomic % to 5.0 atomic % of C.

Claims 6 and 7, Aratani et al teaches that the reflective film included in the at least one recording layer contains 1.0 atomic % to 4.0 atomic % of C.

Claims 8 and 9 Aratani et al teaches that the reflective film included in the at least one recording layer contains about 2.5 atomic % of C.

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4. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto et al (US 6,636,477) and Aratani et al (US 6,788,635) as applied to claims 8 and 9 above, and further in view of Flynn (US 2003/0165111).

Claims 10 and 11, Miyamoto et al and Aratani et al show an optical recording medium as described above, but fails to show the light transmission layer (or substrate) has a thickness of 30 μm to 200 μm .

Flynn shows an optical recording medium, wherein the (light transmission layer) may have a thickness of 0.1 mm (100 μm) to 1.5 mm.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to set the thickness of light transmission layer thickness as taught by Flynn in the range 0.1 to 1.5 mm thus expanding the thickness range to be chosen.

Conclusion

5. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chen Tianjie
TIANJIE CHEN
PRIMARY EXAMINER